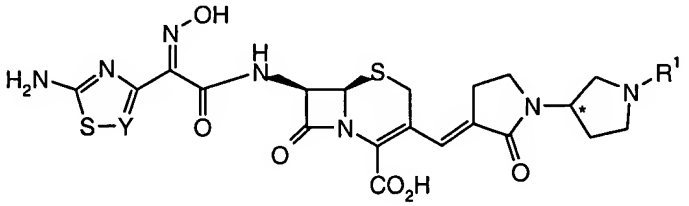
AMENDMENTS TO THE CLAIMS (INCLUDING PRESENTATION OF NEW CLAIMS):

The listing of claims will replace all prior versions of claims in the application.

LISTING OF CLAIMS:

Claims 1-10 (Cancelled)

11. (Currently Amended) The process in accordance with claim ~~1~~ 26, wherein the 3-amino-pyrrolidine of formula I is further processed to a vinylpyrrolidinone-cephalosporin derivative of formula A



A

wherein

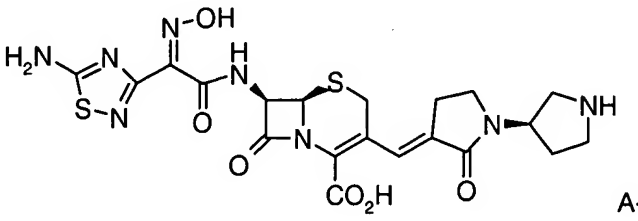
Y signifies CH or nitrogen;

R^1 denotes hydrogen or an amino protecting group; and

*denotes a center of chirality.

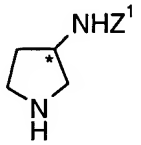
12. (Currently Amended) The process according to claim ~~10~~ 11 for the production of (6R,7R)-7-[(Z)-2-(5-amino-[1,2,4]thiadiaol-3-yl)-2-hydroxyimino-acetylamino]-8-oxo-

3-[(E)-(R)-2-oxo-[1,3']bipyrrolidinyl-3-ylidenemethyl]-5-thia-1-aza-bicyclo[4.2.0]oct-2-ene-2-carboxylic acid of the formula



A-1

13. (Newly Presented) A process for the manufacture of 3-protected amino -pyrrolidine derivatives of the formula



IV

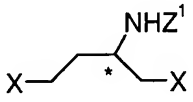
wherein;

Z^1 is an amino protecting group; and

*is a center of chirality,

which process comprises:

converting a compound of the formula



II

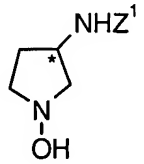
wherein

X is a protected hydroxy group; and

Z^1 is an amino protecting group; and

*is a center of chirality,

by reaction with hydroxylamine or an acid addition salt thereof into a N-hydroxy-3-protected amino pyrrolidine derivative of the formula



III

wherein

Z^1 is an amino protecting group; and

*is a center of chirality,

reducing by hydrogenation with Raney nickel, the N-hydroxy group in the compound of formula III to produce said 3-protected amino -pyrrolidine derivative of formula IV.

14. (Newly Presented) The process according to claim 13, wherein the center of chirality is in the R-form.

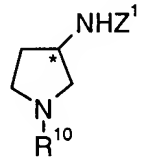
15. (Newly Presented) The process according to claim 13, wherein X is mesyloxy.

16. (Newly Presented) The process according to claim 13, wherein Z^1 is benzyloxycarbonyl.

17. (Newly Presented) The process according to claim 13, wherein the compound of formula II is reacted with hydroxylamine hydrochloride.

18. (Newly Presented) The process according to claim 13, wherein each step is carried out under pressure.

19. (Newly Presented) A process for the manufacture of a di-protected 3-protected amino - pyrrolidine of the formula.



V

wherein;

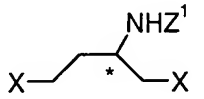
Z^1 and R^{10} are amino protecting groups;

Z^1 is an amino protecting group; and

*is a center of chirality,

which process comprises:

converting a compound of the formula



II

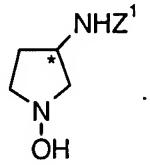
wherein

X is a protected hydroxy group; and

Z^1 is an amino protecting group; and

*is a center of chirality,

by reaction with hydroxylamine or an acid addition salt thereof into a N-hydroxy- 3-protected amino pyrrolidine derivative of the formula



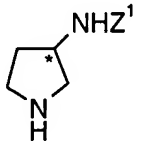
III

wherein;

Z^1 is an amino protecting group; and

*is a center of chirality,

reducing by hydrogenation with Raney nickel the N-hydroxy group in the compound of formula III to produce the N- amino 3-protected amino pyrrolidine derivative of the formula



IV

wherein;

Z^1 is an amino protecting group; and

*is a center of chirality,

and reacting the compound of formula IV with a compound of the formula $R^{10}X^1$, in which R^{10} is an amino protecting group and X^1 is halogen or a leaving group, to protect the N-amino group in the compound of formula IV and produce said di-protected 3-amino- pyrrolidine of the formula V.

20. (Newly Presented) The process of claim 19, wherein the center of chirality is in the R-form.

21. (Newly Presented) The process of claim 19, wherein X is mesyloxy.

22. (Newly Presented) The process of claim 19, wherein Z^1 is benzyloxycarbonyl.

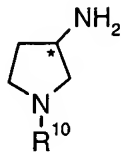
23. (Newly Presented) The process of claim 19, wherein the compound of formula II is reacted with hydroxylamine hydrochloride.

24. (Newly Presented) The process of claim 28, wherein R^{10} is di-tert-butyl-dicarbonate.

25. (Newly Presented) The process of claim 19 wherein said compound R^{10} X^1 is di-tert-butyl-dicarbonate.

26. (Newly Presented) The process of claim 19 wherein each step is carried out under pressure.

27. (Newly Presented) A process for the production of a N-protected amino 3-amino pyrrolidine derivatives of the formula



VI

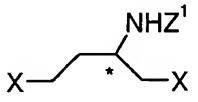
wherein

R^{10} is amino protecting group; and

*is a center of chirality,

which process comprises:

converting a compound of the formula



II

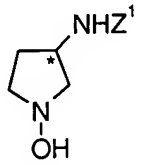
wherein

X is a protected hydroxy group; and

Z^1 is an amino protecting group; and

*is a center of chirality,

by reacting with hydroxylamine or an acid addition salt thereof into a N-hydroxy-3 amino protected pyrrolidine derivative of the formula



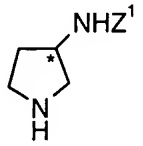
III

wherein;

Z^1 is an amino protecting group; and

*is a center of chirality,

reducing by hydrogenation with Raney nickel, the N-hydroxy group in the compound of formula III to produce the N-amino-3-amino pyrrolidine derivative of the formula



IV

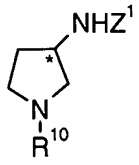
wherein;

Z^1 is an amino protecting group; and

*is a center of chirality,

and

reacting the compound of formula IV with a compound of the formula $R^{10}X^1$, in which R^{10} is an amino protecting group and X^1 is a halogen or a leaving group, to protect N amino group in the compound of formula IV, to produce a protected an N protected 3-protected amino pyrrolidine derivative of the formula:



V

wherein;

R^{10} is amino protecting group; and

Z^1 is an amino protecting group; and

*is a center of chirality,

and thereafter selectively deprotecting 3-amino group in the compound of Formula V, by catalytic hydrogenation to produce said N- protected amino -pyrrolidine derivative of formula VI.

28. (Newly Presented) The process of claim 27, wherein the center of chirality is in the R-form.

29. (Newly Presented). The process of claim 27, wherein X is mesyloxy.

30. (Newly Presented) The process of claim 27, wherein Z^1 is benzyloxycarbonyl.

31. (Newly Presented) the process of claim 27, wherein the compound of Formula II is reacted with hydroxylamine hydrochloride.

32. (Newly Presented) The process of claim 27, wherein the compound $R^{10}X^1$ is di-tert-butyl-dicarbonate.

33. (Newly Presented) The process of claim 27, wherein the selected deprotection of the compound of formula V is carried out by catalytic hydrogenation with palladium on charcoal.

34. (Newly Presented) The process according to claim 27, wherein each step is carried out under pressure.